

Application No.: 09/728,267
Response dated: January 22, 2004
Reply to Office Action of March 27, 2003

IN THE SPECIFICATION

Please amend the Specification as follows:

At page 7, lines 22-27, please delete the paragraph and replace it with the following:

In one embodiment component [C]⁺ comprises a compound having the formula [XDR₁ . . . R_n] wherein n is a positive integer, where each R is the same or different and is aliphatic or aromatic hydrocarbyls having from 1 to 18 carbon atoms, and X D is an atom having a permanent charge selected from Group 15 of the Periodic Table and wherein n is such that the ability of X D to form additional chemical bonds is exhausted. In the preferred embodiment, X D is either nitrogen or phosphorous with nitrogen most preferred.

At page 8, lines 1- 15, please delete the paragraphs and replace them with the following:

The anion component [A]⁻ is a compound with the general formula [EYR'₁ . . . R'_m] wherein Y E is a metal or metalloid and each R' is independently, hydride radicals, bridged or unbridged dialkylamido radicals, alkoxide and aryloxy radicals, hydrocarbyl and substituted hydrocarbyl radicals, and hydrocarbyl- and halohydrocarbyl-substituted organometalloid radicals and any one, but not more than one, R' may be a halide radical; and m is equal to the valence state of plus 1.

In an alternative embodiment [A]⁻ is represented by the formula [B Ar Ar₁ Ar₂ X₃ X₄] wherein B is boron in the valence state of 3+, Ar Ar₁ and Ar₂ are the same or different aromatic or substituted aromatic hydrocarbon radicals and may be linked to each other through a stable bridging ring and X₃ and X₄ are independently, halide radicals, with the proviso that only X₃ and X₄ will be a halide, hydrocarbyl radicals, substituted hydrocarbyl radicals, hydrocarbyl and halo hydrocarbyl substituted organic metalloid radicals, dialkylamido radicals and alkoxy and aryloxy radicals.

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At page 26, line 19, carried over to page 27, line 4, please delete the paragraph and replace it with the following:

In one embodiment of the invention, olefin(s), preferably C2 to C30 olefin(s) or ~~olefin(s)~~ α -olefin(s), preferably ethylene or propylene or combinations thereof are prepolymerized in the presence of the bulky ligand metallocene-type catalyst system and/or a conventional-type transition metal catalysts of the invention prior to the main polymerization. The prepolymerization can be carried out batchwise or continuously in gas, solution or slurry phase including at elevated pressures. The prepolymerization can take place with any olefin monomer or combination and/or in the presence of any molecular weight controlling agent such as hydrogen. For examples of prepolymerization procedures, see U.S. Patent Nos. 4,748,221, 4,789,359, 4,923,833, 4,921,825, 5,283,278 and 5,705,578 and European publication EP-B-0279 863 and PCT Publication WO 97/44371 all of which are herein fully incorporated by reference. A prepolymerized catalyst system for purposes of this patent specification and appended claim is a supported catalyst system.

At page 33, lines 21-25, please delete the paragraph and replace it with the following:

In the most preferred embodiment of the process of the invention, a copolymer of ethylene is produced, where with ethylene, a comonomer having at least one ~~olefin(s)~~ α -olefin(s) having from 4 to 15 carbon atoms, preferably from 4 to 12 carbon atoms, and most preferably from 4 to 8 carbon atoms, is polymerized in a gas phase process.

At page 37, line 21, carried over to page 38, line 3, please delete the paragraph and replace it with the following:

In one embodiment, the polymerization catalyst and/or the catalyst composition has a reactivity ratio generally less than 2, more typically less than 1. Reactivity ratio is defined to be the mole ratio of comonomer to monomer entering the reactor, for example as measured in the gas composition in a gas phase process, divided by the mole ratio of the comonomer to monomer in the polymer product being produced. In a preferred embodiment, the reactivity ratio is less than 0.6, more preferably less than 0.4, and most preferably less than 0.3. In the

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most preferred embodiment, the monomer is ethylene and the comonomer is an olefin having 3 or more carbon atoms, more preferably an ~~α-olefin(s)~~ α-olefin(s) having 4 or more carbon atoms, and most preferably an ~~α-olefin(s)~~ α-olefin(s) selected from the group consisting of butene-1, 4-methyl-pentene-1, pentene-1, hexene-1 and octene-1.

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